Bill D. Herman
4807 Chester Ave, #103
Philadelphia, PA 19143-3442
kennymccormickaff@hotmail.com

Marlene H. Dortch
Office of the Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554.

August 15, 2005

Dear Commissioners,

I am writing in regards to proceeding number 05-196. I fully support the move to ensure that, when ordered in lieu of a traditional landline, a VoIP phone connect as quickly to the appropriate emergency services as a traditional landline or cellular call. I am writing primarily to express concerns about some of the potential solutions for this problem as applied to mobile VoIP.

On page 33 of the First Report and Order and Notice of Proposed Rulemaking, paragraph 57 includes the following list of possible solutions:

> A number of possible methods have been proposed to automatically identify the location of a VoIP user, including gathering location information through the use of: an access jack inventory; a wireless access point inventory; access point mapping and triangulation; HDTV signal triangulation; and various GPS-based solutions.

As a young media policy scholar and an advocate of privacy, I must say that any inventory of access points smacks of electronic surveillance. Thousands of children die every year in swimming pools, but if a federal commission began demanding access to every back yard for a national inventory, homeowners would correctly feel invaded. This is no different; my purchase of a wireless router should not come with any obligation to tell the federal government the first thing about where or how I will use it. Even the invasion of commercial access points is an unacceptable burden on establishments' ability to provide customers with the right to browse anonymously. In short, any proposed inventory of access points (wired or wireless) is but a first step toward a more robust system of electronic surveillance. I urge you to put constitutional values ahead of microscopic short-term gains in safety—especially with other solutions on the table.

Additionally, any such inventory will be totally ineffective. Consider the work of Dr. Christian Sandvig (see: http://www.spcomm.uiuc.edu/users/csandvig/ for more on him). He did a study of available WiFi spots in three Chicago neighborhoods, and he encountered a significant mix of three types of access points: encrypted, unintentionally

open, and intentionally open. Especially in the more wealthy, tech-savvy of the three neighborhoods (the kind of area where people are likely to use WiFi VoIP in the near- to mid-term), the saturation was remarkable. Even from the street, Sandvig demonstrates that a large number of residential WiFi hubs are deliberately left open to public access. Out of dozens of accessible points, a very slim minority were commercial spaces (e.g., coffee shops). In other words, if one wants to effectively inventory usable access points, one will literally be forced to intervene into the home networks of millions of Americans. The commission could therefore face a number of unacceptable possibilities:

- A voluntary registration system that yields little participation
- A mandatory registration system that is un- or under-enforced
- An expensive, invasive enforcement regime, including (but not limited to) triangulating surveys in countless neighborhoods to see who is offering unregistered access spots

I am no scholar of the finer points of administrative law, but the latter option is not within FCC jurisdiction as I know it. Even more problematically, though, it is a violation of important constitutional protections, including but not limited to the rights to anonymous speech and browsing, privacy, and security against unreasonable search and seizure. It also sounds like the prelude to a system custom-made to enforce the wishes of law enforcement personnel, telecommunications firms, and the content industries. Once this massive database exists, we are well on our way to an FCC that ensures that Americans do not download "dangerous" information, share their broadband connections with their neighbors, or use peer-to-peer software.

Instead of an unwieldy inventory, I recommend a device-based, GPS tracking approach for portable VoIP devices—if and only if those devices look and work like a cellular telephone. As long as the end-user can turn off GPS tracking for all non-emergency calls, there is little privacy threat here. Further, since the FCC can more reasonably and effectively implement this design mandate (or, at worst, could convince Congress to do so with little fanfare), this solution will cost far less and work far more effectively than the proposed inventory solutions discussed above.

On a cautionary note, however, I urge you not to apply this mandate to general-purpose mobile computers. Especially in light of recent developments by PC chip makers to include "trusted computing" (TC) engineering in their products, GPS tracking in laptops is a serious privacy threat. Thanks to TC chips, operating system vendors may soon have more fundamental control over a consumer's computer than that citizen—even at a distance, once the consumer is online. (For more on TC, see: http://www.eff.org/Infrastructure/trusted_computing/20031001_tc.php/) It is already a perverse scenario that Microsoft may soon have the power to disable (again, at a distance) any programs it does not like. We must not mandate a laptop tracker that gives them the ability to know our physical location as well.

In sum, I support reasonable and noninvasive measures for establishing 911 functionality for VoIP customers. If it looks and acts like a landline, it should dial the correct 911 operator. (I also see no reason that VoIP customers should not pay a reasonable 911 fee.) If it looks and acts like a cellular phone, I am comfortable with a mandated GPS tracking device that only activates when the user calls 911. The FCC has no business, however, enforcing any scheme to inventory all available online access points. Such an inventory is a patent violation of our constitutional rights, and it would do the job far less effectively than a simple extension of the mandates that now exist for preexisting telephone services.

Sincerely,

Bill Herman